



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

February 6, 1987

DOGM  
MINERALS PROGRAM  
FILE COPY

TO: Board of Oil, Gas and Mining

THRU: Kenneth E. May, Associate Director, Mining

THRU: Lowell P. Braxton, Administrator, Mineral Resource Development and Reclamation Program

FROM: D. Wayne Hedberg, Permit Supervisor/Reclamation Hydrologist *DWH*

RE: Southwestern Portland Cement, Inc., Navajo Sandstone Quarry, Request for Board Concurrence, Amount and Form of Reclamation Surety, ACT/023/010, Juab County, Utah

Attached for your information is a copy of the executive summary for Southwestern Portland Cement Enterprises, Inc., Navajo Sandstone Quarry. Southwestern Portland Cement filed a reclamation bond on January 12, 1987 for the proposed mine site disturbance. The Division seeks your concurrence on the amount and form of the surety. The reclamation bond (MR Form 5) is in the sum of \$51,000 (1987 dollars).

Public notice was forwarded to the appropriate news services, and the thirty (30) day public comment period for the project expired on January 25, 1987. No written public comments were received by the Division.

Southwestern Portland Cement has adequately resolved all but one of the conditions which were attached to the Division's December 18, 1986 tentative approval letter. This condition will be addressed during the spring of 1987. Please refer to the attached executive summary for a general description of the mining proposal.

jvb  
Attachments  
8946R-58

## EXECUTIVE SUMMARY - NEW PERMIT

Mine Name: Navajo Sandstone Quarry  
Operator: Southwestern Portland Cement  
P.O. Box 21158  
S.L.C., Utah 84121  
Telephone: 801-263-3011  
Contact Person: Mr. Marv Berg  
Life of Mine: 20 Years  
Legal Description: Sections 19 and 30, Township 13 South, Range 1 West and  
Section 24 and 25, Township 13 South, Range 2 West.  
Mineral(s) to be Mined: Sandstone  
Mining Methods: Surface Mine  
Acres to be Disturbed: 38 Acres  
Present Land Use: Rangeland and mining  
Postmining Land Use: Rangeland  
Variances from Reclamation Standards (Rule M-10) Granted: M-10(5) Highwall

### Soils and Geology:

Soil Description: Loam, 0-6 inches thick, strongly alkaline, with many  
rock outcrops.  
pH: 8.11 - 8.65  
Special Handling Problems: Moderate erosion hazard.  
Geology Description: Thin topsoil lies directly on top of the Navajo  
Sandstone outcrop.

### Hydrology:

Ground Water Description: Water table is located below the zone of mining.  
Surface Water Description: Two ephemeral drainages crossing the mine site  
form the eastern and western quarry limits. No perennial water is found on  
the permit area.  
Water Monitoring Plan: None required. Insignificant impact to water  
resources anticipated.

### Ecology:

Vegetation Type(s); Dominant Species: Sagebrush, Pinyon, Juniper and  
limited dryland grasses and forbs.  
Percent Surrounding Vegetative Cover: Refer to "remaining condition"  
Wildlife Concerns: No significant concerns identified.  
Surface Facilities: None proposed.  
Mining and Reclamation Plan Summary: See attached summary

### Surety:

Amount: \$ 51,000 (1987 dollars)  
Form: MR Form 5, Reclamation Bond  
Renewable Term: 1 year, subject to revision in 1988 (depends upon extent  
of surface disturbance affected).

ATTACHMENT

Mining and Reclamation Plan Summary  
New Permit Application, Navajo Sandstone Quarry

Southwest Portland Cement, Inc.

ACT/023/010

Juab County, Utah

February 6, 1987

During Operations:

1. Southwest Portland Cement, Inc. will develop and operate a 20 year open pit sandstone quarry. The operation will disturb 6 acres initially and 3 to 4 additional acres every 5 years. A series of terraced benches 80(H) X 40(V) will be developed. There will be no waste tailing piles, buildings, foundations, sewage or any associated facilities located on the mine site. Anticipated production will be @100,000 tons annually.
2. Proposed disturbance includes: The mine pits, waste dump areas, topsoil storage sites, haul and access roads, surface drainage control structures, and diversions. All proposed disturbance will be located on land leased by the Bureau of Land Management (38 acres total).
3. Topsoil stripping will be accomplished by dozer using a down-slope recovery method. Topsoil storage will be adjacent to the stripped sections. Topsoil stockpiles will be broadcast seeded to minimize erosion.
4. Pit run material will be loaded onto haul trucks and transported to the Leamington Cement Plant where existing mine and mill facilities will be used to process the sandstone which is mined.
5. A revegetation test plot will be established in the spring of 1987 to determine the success of the species selected for final reclamation.

Following Operations:

The operator will implement the following reclamation plan upon termination of all mining activities associated with the Navajo Sandstone Quarry:

1. Disturbed areas including roads, pads and benches will be stabilized, regraded, and sloped to conform with the surrounding site topography to the extent practicable.
2. The terraced benches will be covered with 4 - 6 inches of topsoil and seeded with the approved seed mixture. Final overall slope should not exceed 2H:1V.

3. The regraded and topsoiled disturbed areas will be revegetated during the fall season with a seed mix which is best suited to the elevation and climate of the mine site. Standard agronomic practices will be used to prepare the seedbed for drill, broadcast, or hydro-seeding. Appropriate rates of fertilizer and mulch will be applied based upon plant and soil needs.
4. Upon revegetation, fencing will be installed as necessary to insure proper vegetation establishment before grazing resumes. Post-revegetation monitoring will be performed during the liability period.

Variance Granted:

M-10(5) Highwalls

The Division has granted a variance regarding pit slope requirements of the mining operation. The operator has provided sufficient documentation to justify granting this request. In the event the final configuration and condition of the pit benches and slopes differ significantly from those proposed in the MRP, the Division may require Southwestern Portland Cement, Inc. to submit further stability analysis to indicate mass stability of the same.

Remaining Condition:

The operator has committed to perform a vegetation survey of the immediate area during the spring of 1987 with assistance from the Division.

(August 1986)  
(Noncoal)Bond Number \_\_\_\_\_  
Permit Number ACT/023/010  
Mine Name Navajo Sandstone QuarrySTATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
(801) 538-5340RECEIVED  
JAN 12 1987

THE MINED LANDS RECLAMATION ACT

DIVISION OF  
OIL, GAS & MININGBOND  
\*\*\*\*\*

The undersigned Southwestern Cement Enterprises, Inc.  
as principal, and American Casualty Company of Reading, Penn- as  
surety, hereby jointly and severally bind ourselves, our heirs, sylvania  
administrators, executors, successors and assigns unto the State of Utah,  
Division of Oil, Gas and Mining in the penal sum of -Fifty-One Thousand  
and no/100----- dollars (\$ 51,000.00 ).

The principal estimated on the Mining and Reclamation Plan filed with the  
Division of Oil, Gas and Mining on the 18th day of December,  
19 86, that 18 acres of land will be disturbed by this  
mining operation in the State of Utah. A description of the disturbed land is  
attached hereto as Exhibit "A."

When the Division has determined that the principal has satisfactorily  
reclaimed the above-mentioned lands affected by mining in accordance with the  
approved Mining and Reclamation Plan and has faithfully performed all  
requirements of the Mined Land Reclamation Act, and complied with the Rules  
and Regulations adopted in accordance therewith, then this obligation shall be  
void; otherwise it shall remain in full force and effect until the reclamation  
is completed as outlined in the approved Mining and Reclamation Plan.

If the approved plan provides for reclamation of the land affected on a  
piecemeal or cyclic basis, and the land is reclaimed in accordance with such  
plan, then this bond may be reduced periodically.

In the converse, if the plan provides for a gradual increase in the area  
of the land affected or increased reclamation work, then this bond may  
accordingly be increased with the written approval of the surety company.

This bond is noncancellable by the surety at any time for any reason  
including, but not limited to, nonpayment of premium or bankruptcy of the  
permittee during the period of liability.



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NOTE: Where one signs by virtue of Power of Attorney for a surety company, such Power of Attorney must be filed with this bond. If the principal is a corporation, the bond shall be executed by its duly authorized officer.

Dated this 18th day of December, 1986.

State of Utah  
Board of Oil, Gas and Mining

Gregory P. Williams, Chairman

SOUTHWESTERN CEMENT ENTERPRISES, INC.  
Principal (Company)

By Susan A. Nasrussen  
Company Officer - Position  
Assistant Secretary

Date: January 9, 1987

AMERICAN CASUALTY COMPANY OF READING,  
Surety (Company) PENNSYLVANIA

By Linda Frey  
Surety Company Officer - Position  
Linda Frey, Attorney-in-Fact

Date: December 18, 1986

APPROVED AS TO FORM:

By Robert W. Robert  
Assistant Attorney General

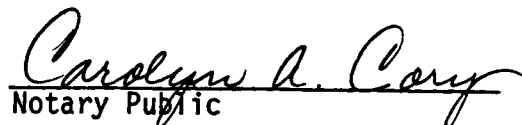
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AFFIDAVIT OF QUALIFICATION

Linda Frey, being first duly sworn, on oath deposes and says that he/she is the (officer or agent) Attorney-in-Fact of said Surety Company, and that he/she is duly authorized to execute and deliver the foregoing obligations; that said Surety Company is authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations.

(Signed)   
Surety Company Officer - Position

Subscribed and sworn to before me this 18th day of December, 1986.

  
Notary Public

My Commission Expires:

August 15, 1990.



**American Casualty Company  
of Reading, Pennsylvania**



For All the Commitments You Make®

Offices/Chicago, Illinois

**POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT**

Know All Men by these Presents, That AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania, and having its principal office in the City of Chicago, and State of Illinois, does hereby make, constitute and appoint Charles H. Harper, Charles C. Campbell,

William R. Plegge, Linda Frey, Dale E. Temple, Steven C. Russell, Carolyn A. Cory,

Individually

of Little Rock, Arkansas

its true and lawful Attorney-in-Fact with full power and authority hereby conferred to sign, seal and execute in its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA and all the acts of said Attorney, pursuant to the authority hereby given are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the Board of Directors of the Company:

**"Article VI—Execution of Obligations and Appointment of Attorney-in-Fact**

Section 2. Appointment of Attorney-in-fact. The President or Vice President may, from time to time, appoint by written certificates attorneys-in-fact to act in behalf of the Company in the execution of policies of insurance, bonds, undertakings and other obligatory instruments of like nature. Such attorneys-in-fact, subject to the limitations set forth in their respective certificates of authority, shall have full power to bind the Company by their signature and execution of any such instruments and to attach the seal of the Company thereto. The President or any Vice President or the Board of Directors may at any time revoke all power and authority previously given to any attorney-in-fact."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 11th day of November, 1966:

"Resolved, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to Section 2 of Article VI of the By-Laws, and the signature of the Secretary or an Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power, and any power or certificate bearing such facsimile signatures and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

In Witness Whereof, AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed this 16th day of May, 1986.

State of Illinois }  
County of Cook } ss



AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA

J. E. Purtell  
J. E. Purtell

Vice President.

On this 16th day of May, 1986, before me personally came J. E. Purtell, to me known, who, being by me duly sworn, did depose and say: that he resides in the Village of Glenview, State of Illinois; that he is a Vice-President of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, the corporation described in the which executed the above instrument; that he knows the seal of said Corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.



Leslie A. Smith  
Leslie A. Smith

Notary Public.

**CERTIFICATE** My Commission Expires November 12, 1986

I, M. C. Vonnahme, Assistant Secretary of AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA, do certify that the Power of Attorney herein above set forth is still in force, and further certify that Section 2 of Article VI of the By-Laws of the Company and the Resolution of the Board of Directors, set forth in said Power of Attorney are still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said Company this 18th day of December, 1986.



M. C. Vonnahme  
M. C. Vonnahme

Assistant Secretary.

RESOLVED, that the following named persons be and the same hereby are appointed to the office or offices shown opposite their names, respectively, each to serve in his respective capacity, effective April 24, 1986, until his successor shall have been appointed and qualified:

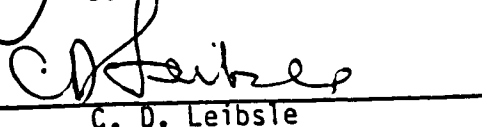
M. A. Yannone	Vice President-Technical Services and Projects - California Division
R. M. Ratekin	Vice President-Sales - California Division
W. I. Gharst	Vice President-Sales - Eastern Division
J. L. McIntyre	Vice President-Operations and Assistant General Manager - Eastern Division
T. F. Swafford	Vice President-Sales - Southwest Division
J. E. Burian	Vice President-Operations - Southwest Div.
R. H. Raab	Vice President-Sales - Mountain Div.
G. A. Anderson	Vice President-Operations - Mountain Div.
M. G. Meador	Controller
W. L. Klukken	General Credit Manager and Assist. Secretary
R. F. Bauer	Assistant Secretary
R. L. Moody	Assistant Secretary
S. Rasmussen	Assistant Secretary
R. Soliman	Assistant Secretary
W. E. Phillips, II	Assistant Secretary
K. D. Cohn	Assistant Secretary

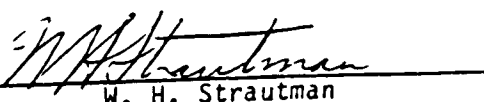
RESOLVED, that the compensation of Corporate Officers, effective January 1, 1986, is hereby approved and the details of such compensation shall be filed in the confidential records of the Payroll Department.

Witness the signatures of the undersigned this 24th day of April, 1986.

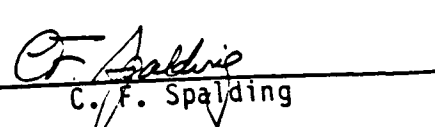
  
W. J. Conway

  
J. H. Davies

  
C. D. Leibsle

  
W. H. Strautman

  
D. E. Peiser

  
C. F. Spalding

Document  
0942R

Bond Estimate  
Navajo Sand Stone Quarry  
By Frank Filas, 10-9-86

1. Earthwork and Grading	\$32,020
2. Revegetation	3,980
3. Safety and Fencing	6,340
4. Maintenance and Monitoring	3,140
Subtotal	\$45,480
5. Ten Percent Contingency	4,550
Total in 1986\$	\$50,030

Bond Period  
(Inflation at 1.62% per year)

Time(Years)	Year	Bond Amount	Time(Years)	Year	Bond Amount
1	1987	\$50,840	5	1991	\$54,220
2	1988	51,660	10	1996	58,750
3	1989	52,500	15	2001	63,670
4	1990	53,350	20	2006	68,990

Bond Estimate  
Navajo Sand Stone Quarry  
By Frank Filas, 10-9-86

1. Earthwork and Grading, Cost= \$32,020

- A. Grade spillage and waste material in quarry area  
16.6 acres, D-8L dozer at 1.5 acres/hour  
11 hours at \$171/hour = \$1880
- B. Scarification of quarry area  
16.6 acres, D-8L dozer with draw bar at 1.5 acre/hour  
11 hours at \$184/hour = \$2020
- C. Remove 6 inches of gravel from road and rip road base  
1 acre, D-8L dozer with ripper, 615 cat scraper  
8 hours at \$184/hour & 8 hours at \$137/hour = \$2570
- D. Spread 15,000 cubic yards of topsoil over road and quarry area  
18 acres, 6 inches deep  
D-8L dozer, 56 hours at \$171/hour = \$9580  
615 scraper, 96 hours at \$137/hour = \$13,150  
12 G motor grader, 30 hours at \$94/hour = \$2,820  
Total cost for topsoil = \$25,550

2. Revegetation, Cost = \$3,980

- A. Disc and seed 18 acres  
farm tractor, 18 hours at \$50/hour = \$900
- B. Cost of seed and fertilizer  
18 acres at \$171/acre = \$3080

3. Safety and Fencing, Cost = \$6340

- A. Erect warning signs and 3000 feet of fence  
Two laborers, 600 feet per day  
40 hours at \$46/hour = \$1840
- B. Cost of fence and signs  
3000 feet at \$1.50/foot = \$4,500

4. Maintenance and monitoring, Cost = \$3,140

- A. Monitoring, three year period  
four site visits per year at four hours/visit  
48 hours at \$33/hour = \$1,580
- B. Maintenance, revegetate 20 percent of area
  - i) Repair rills and gullies, reseed  
Farm tractor, 8 hours at \$50/hour = \$400
  - ii) Seed and hay mulch cost  
3.6 acres at \$321/acre = \$1160

Equipment and Labor Costs  
Navajo Sandstone Quarry

The heavy equipment weekly rental and operating costs are from the Rental Rate Blue Book. Labor and operator costs are from the 1986 Means Site Cost Data handbook.

Equipment Cost

Equipment	Rental Cost per hour	Maintenance, Fuel per hour	Operator per hour	Total per hour
12 G Motor Grader	\$50.75	\$13.40	\$29.85	\$95.00
615 Cat Scraper	81.12	26.45	29.85	137.42
D-8L Dozer	108.75	32.10	29.85	170.70
Farm Tractor	10.00	3.00	28.20	41.20

Add \$100 a day for rental of a ripper or drawbar. Add \$70 a day for rental of a disc and seeder.

Labor Cost

Foreman	\$32.85/hr
Laborer	23.05/hr
Heavy Equip. Operator	29.85/hr
Light Equip. Operator	28.20/hr

Labor costs includes benefits and subcontractors profit.